

CONNECTED TEAMS

Systems of Care that **SCALE**



IT'S ABOUT **PEOPLE**



WHAT IS PULSARA?

During the most critical moments in life, Pulsara **unites** distributed teams and fragmented technologies as dynamic events evolve on a scalable **communications** and **logistics** platform, improving the lives of people in need and those who serve them.

IT'S ABOUT **PEOPLE**

Logistics

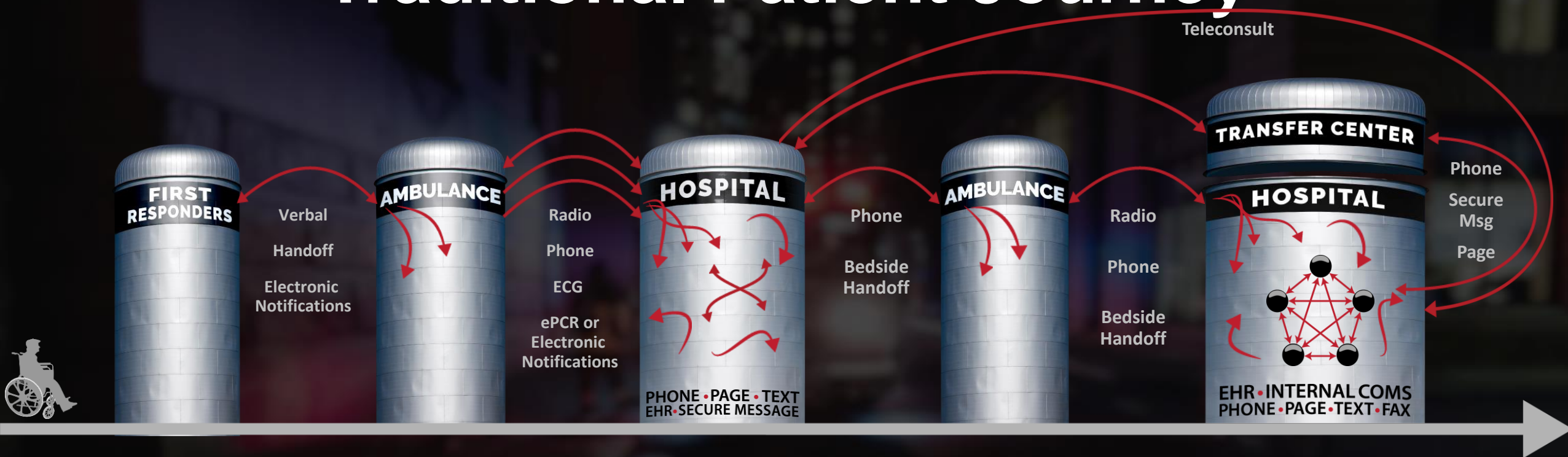
Oxford

the process of planning and organizing to make sure that resources are in the places where they are needed, so that an activity or process happens effectively

Systems of Care that SCALE

Using the same system daily that can scale easily for local, regional, or national emergencies.

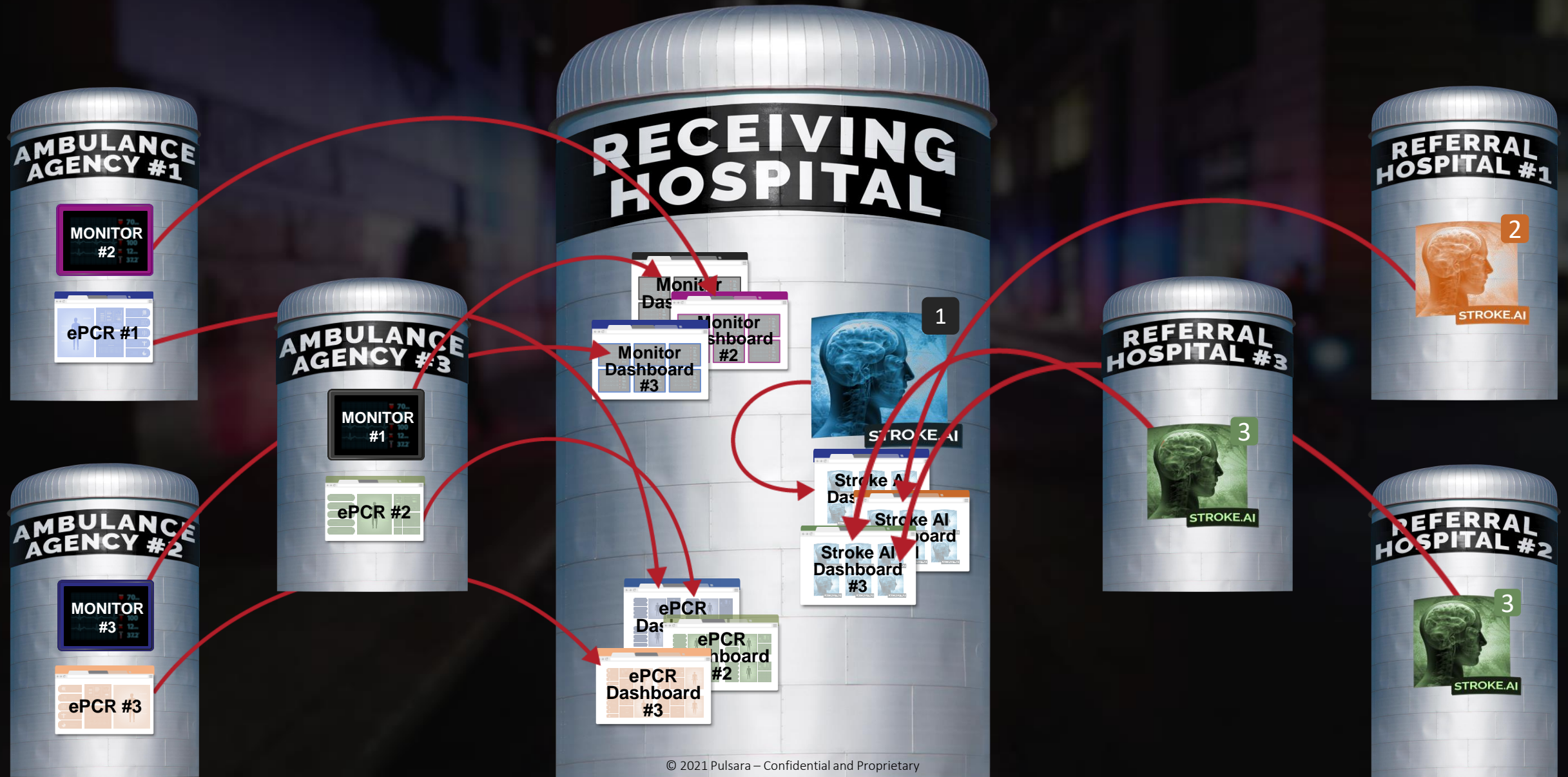
Traditional Patient Journey



Each Red Arrow Represents a Separate Communication Channel

COMMUNICATION CHANNELS: Numerous

Data Channels



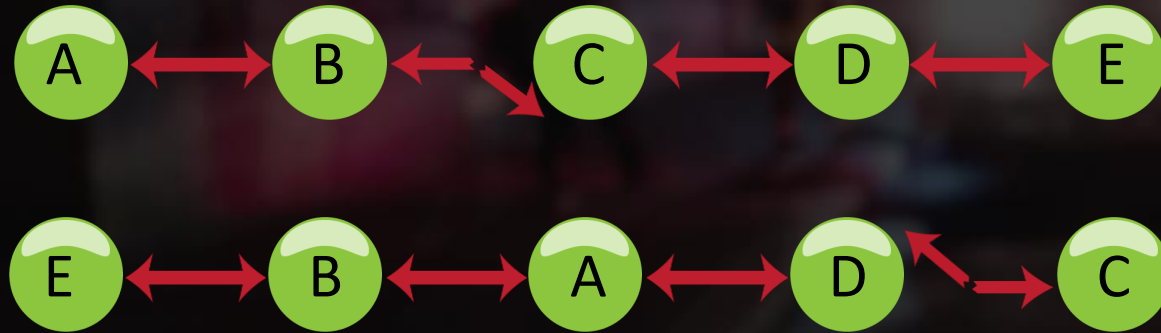
Phone & Supply Data Driven

Hospital Resources Updated Daily



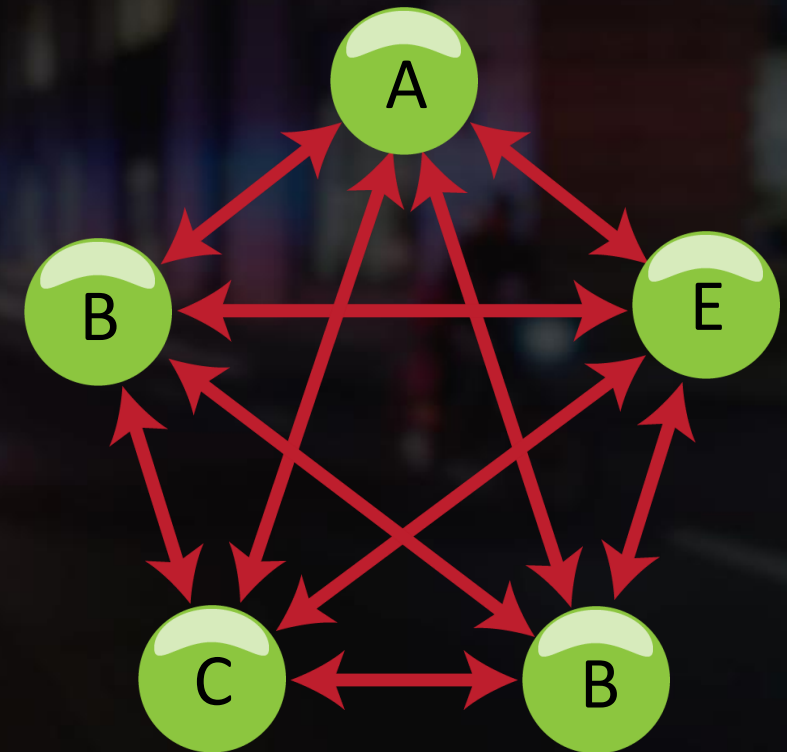
Multiple Linear Channels vs Single All Channel

1 : 1
1 : Few



Strength = Weakest Link

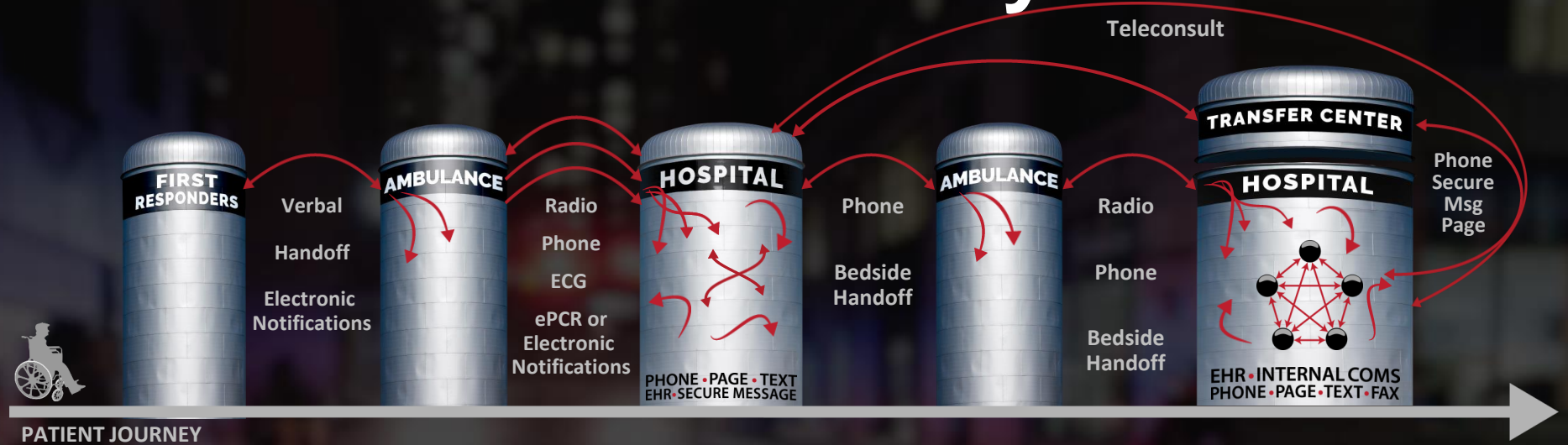
Many : Many



Strength > Sum of Parts

Pulsara Patient Journey

Instead of this....



This.... **3 STEPS**

- 1) Create Channel
- 2) Build Team
- 3) Communicate & Track

Data IN (Examples)



Data OUT



ONE UNITED CARE TEAM

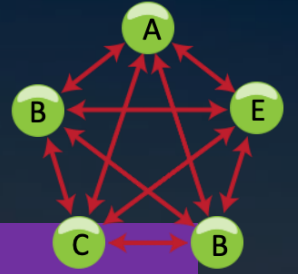
PATIENT JOURNEY

PULSARA PLATFORM
MOBILE TECHNOLOGY

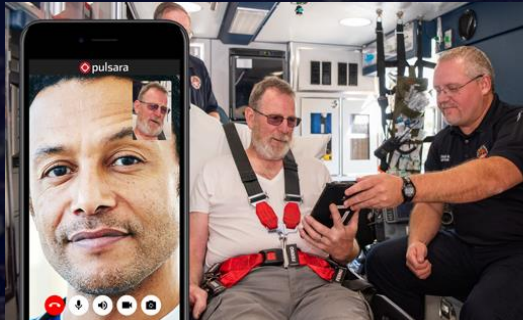
What are the Supported Platforms & Devices?



Networked Communication



SYNCHRONOUS



Live Video



Audio Clips



GPS



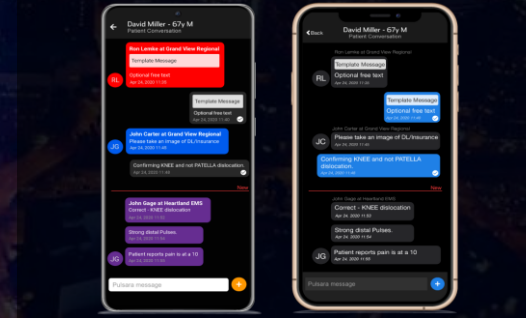
DATA



Live Audio



Images



Team Messaging



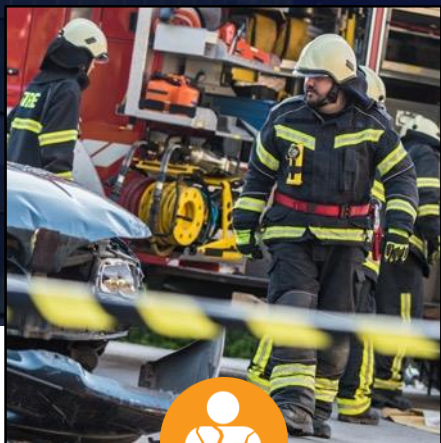
Documentation

INTEGRATIONS

System of Care that SCALES

ALL TEAM COMMUNICATIONS ON **ONE PLATFORM**

Trauma



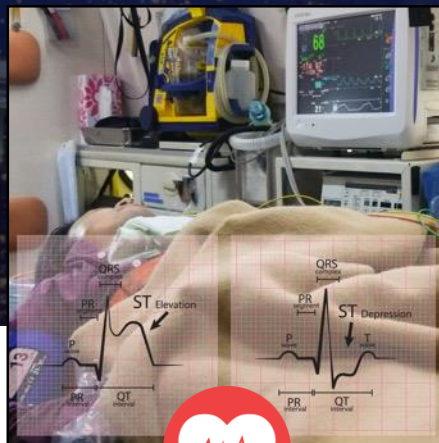
Burn Team

Cardiac Arrest



*ECMO/ROSC
Team*

STEMI



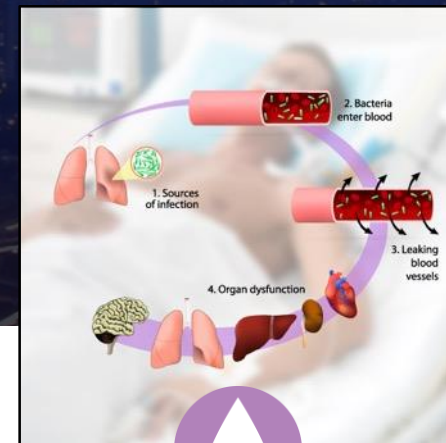
Shock Teams

Stroke



*LVO Thrombectomy
Neurosurgery*

Sepsis



Shock Workflows

Any Patient, Any Time, from Anywhere

Pulsara is the Accepted Evidence-Based Standard of Care



50% Decrease in False STEMI Activations

15% Reduction in Door to Balloon Time within 1s

25% Average Reduction in Door to Balloon Time <

24% Improvement in Door to Balloon Time <60 M

22% Average Reduction in Door to Balloon Time

58% Improvement in Door to Balloon After Hour

30% Average Reduction in First Medical Contact t

40% Average Improvement in Door to Triage Time

50% Average Reduction in Door to Balloon Time

28 Minute Decrease in Average Door to Balloon Time





All Team Communications **ON ONE PLATFORM**

Any Patient, Any Time, from Anywhere



General Patient

- PE Response
- Surgical Call
- OB Delivery
- Transplant
- Emergent Pacemaker
- ...



How Can Cases Be Started?

For Any Patient, at Any Time, from Anywhere

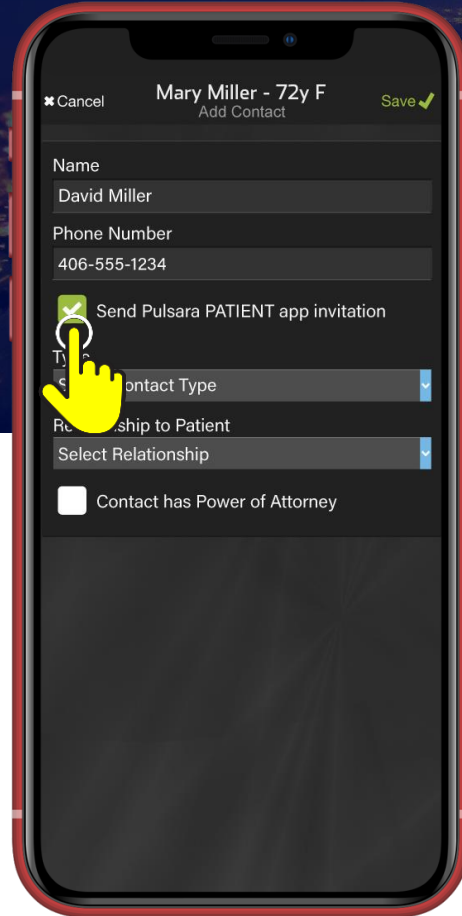
- Prehospital Provider - EMS
- Inbound EMS
- Walk-in ED Patient
- Inpatient
- Spoke to Hub Transfer
- Virtual

See Who is On Call, Consult with Specialist,
Activate Team(s)



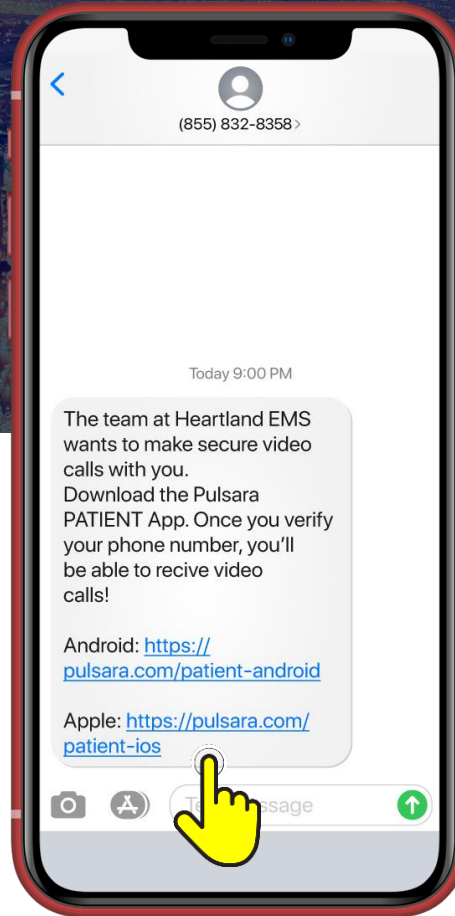
Pulsara PATIENT

Step 1 Invite Contact



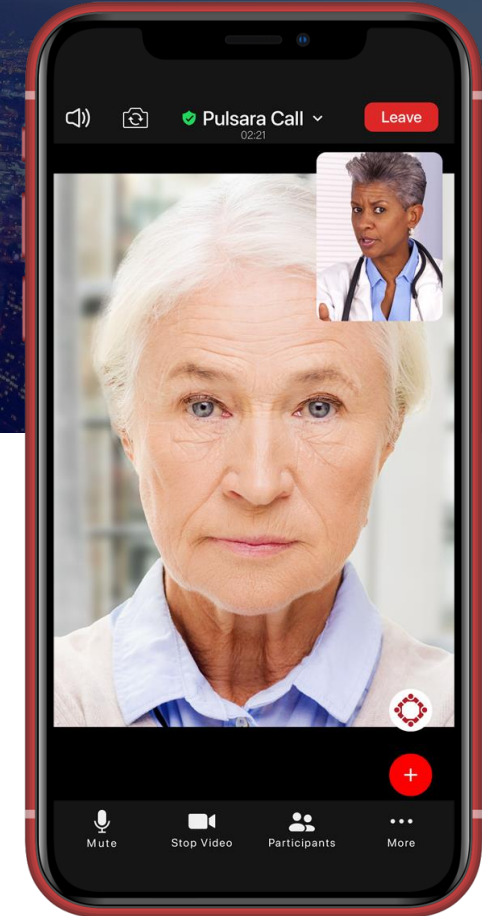
Once a patient channel is created, the caregiver can add someone under CONTACTS.

Step 2 They Install



That person will receive a text with the link to download and install Pulsara Patient.

Step 3 Communicate Securely



Once installed, the caregiver will be notified. The caregiver can then initiate a secure audio or video call.

- Manage Users
- Add Health System Admin
- Add Hospital Admin
- Manage Invites
- Signup Links
- Approve Users
- Users Tabular View

- Manage Cases

- Export Cases

- Activity Log

View and export patient and case details. Start by selecting a case type, start date, and end date. Columns are individually controlled using the column menu icon.

Case Type *

☐ STEMI

☐ Cardiac Arrest

☒ Stroke

☐ Trauma

☐ Sepsis

☐ General

Date Range *

2019/07/01

to

2019/08/31

Column Descriptions

Hospital

Medical Center Bowling Green (Winslow Healthcare System)

Begin typing and then select a hospital from the list.

Search

Patients			Select Columns	Clear All Filters	Export
Patient	Patient ID	At Patient to Puncture Timer	Actions		
Winslow, Forrest	-----	-			
R, Corey	67331685	-			
Ricketson, Corey	-----	-			
Fonda, Jane	-----	-			

Patient	Age	Gender	Height	Weight (Lbs)	Method of Arrival	Hospital	EMS Agency	
Doe, Jessie	73	Female	5'4"	68	EMS	Pulsara Regional	Pulsara EMS	Shawnee West
Doe, Jan	69	Female	5'11"	61	EMS	Pulsara Memorial	Pulsara EMS	Shawnee West
Doe, James	55	Male	6'3"	80	EMS	Pulsara Medical Center	Pulsara EMS	Britt Nelson Doe
Doe, Jerry	80	Male	5'11"	76	EMS	Pulsara Memorial	Pulsara EMS	Britt Nelson Doe

Pages	Timers																							
	ED Door to NIHSS Timer	ED Door to CT Completed Timer	ED Door to CTA Completed Timer	ED Door to Lytics Timer	ED Door to IR Team Activation Timer	ED Door to Suspected LVO Timer	ED Door to Puncture Timer	EMS At Patient to Reperfusion Timer	EMS At Patient to Scene Departure Timer	EMS At Patient to ED Door Timer	EMS At Patient to CT Completed Timer	EMS At Patient to CTA Completed Timer	EMS At Patient to IR Team Activation Timer	EMS At Patient to Suspected LVO Timer	EMS At Patient to Lytics Timer	EMS At Patient to Puncture Timer	Last Known Well to Reperfusion Timer	Last Known Well to ED Door Timer	Last Known Well to Lytics Timer	Last Known Well to Puncture Timer	NIHSS to Suspected LVO Timer	Puncture to Reperfusion Timer	CT Completed	IR T
	7	12	32	32				10	18	30			50	50			78	110			25			
	5	12		18				7	30	42			48				75				13			
	5	18	33	40	8	63	88	15	32	50	65	72	40		95	120	1382		1445	1470	3	25	45	13
	7	20	45	30				10	20	40			50	65			120	165			23			

CT Timer	Last Known Well to Puncture Timer	NIHSS to Suspected LVO Timer	Puncture to Reperfusion Timer	CT Completed to Reperfusion Timer	IR Team Activation to IR Team Ready Timer
25					
13					
1470	3	25	45	13	
23					

How to Build Care Team



COMMUNICATION CHANNELS: ONE

How to Build Care Team



PATIENT JOURNEY



COMMUNICATION CHANNELS: **ONE**

EMS: Systems of Care that SCALE

HOSPITALS

Routine Transports • ET3
Time Sensitive Emergencies •
Inter-facility



EMERGENCY MGT / REGIONAL

RMOC/SMOC • State Trauma (or Other)
Center • Regional Communication
Center or Care Coordination Hub



OTHER EMS

Handoff – EMS/First Responder •
Regional Communication Center
or Care Coordination Hub



ALT DESTINATIONS

Behavioral Health • Detox • Urgent
Care • Surge Facilities (Alternate
Care Sites)



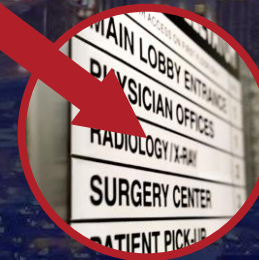
TELEHEALTH / VIRTUAL

Medical Control • Treat In Place
(ET3) • Specialty Consults
(Stroke, Trauma...)



ET3 / CP / MIH

Hospitals • Alternative Destinations
Treat in Place • Intra-agency
Partner



HOSPITAL: Systems of Care that SCALE

INBOUND EMS

- Time Sensitive Emergencies
- Routine Transports
- MIH/CP/ET3



INBOUND OTHER

- Urgent Care Clinic
- Free Standing ED
- Nursing Home
- Referral Facilities - In & Out of Network
- EOC/MOCC
- Unscheduled Patients
- Virtual Care Centers

OUTBOUND

Consult/Transfer

PACKAGES



EMS/AMBULANCE



Pulsara **ONE**

Free

- Replace Traditional Radio Report
- Includes ECG and Live Video

Pulsara **UNITED**

Annual Subscription

- Includes Everything in Pulsara ONE plus:
- MIH / CP
 - Medical Control
 - Supervisors
 - ET3
 - ePCR Integration

HOSPITAL OR HEALTHCARE FACILITY



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 - Build Teams on the Fly
 - Data for Reporting and Quality Assurance

MED OPS



Pulsara **MED OPS**

Annual Subscription

- EOC for Medical Operations (MOCC)
- MPI / MCI
- Disaster
- Pandemic
- State/Region Based Trauma or Time Sensitive Emergency Systems
- Centralized Medical Control

STATE / REGIONAL BUNDLES AVAILABLE

Collaboration Hub

RMOC / SCC
Austin C4
Command Center
Alternative 911
ET3

Pulsara Virtual Care Center (VCC)

Med Control
Consults
Infusion Center
ET3

Pulsara Virtual Placement Center (VPC)

Potential Receiving Centers

Texas Emergency Medical Task Force

TX EMTF 1

MPV 1-01: UMC EMS

TX EMTF 9

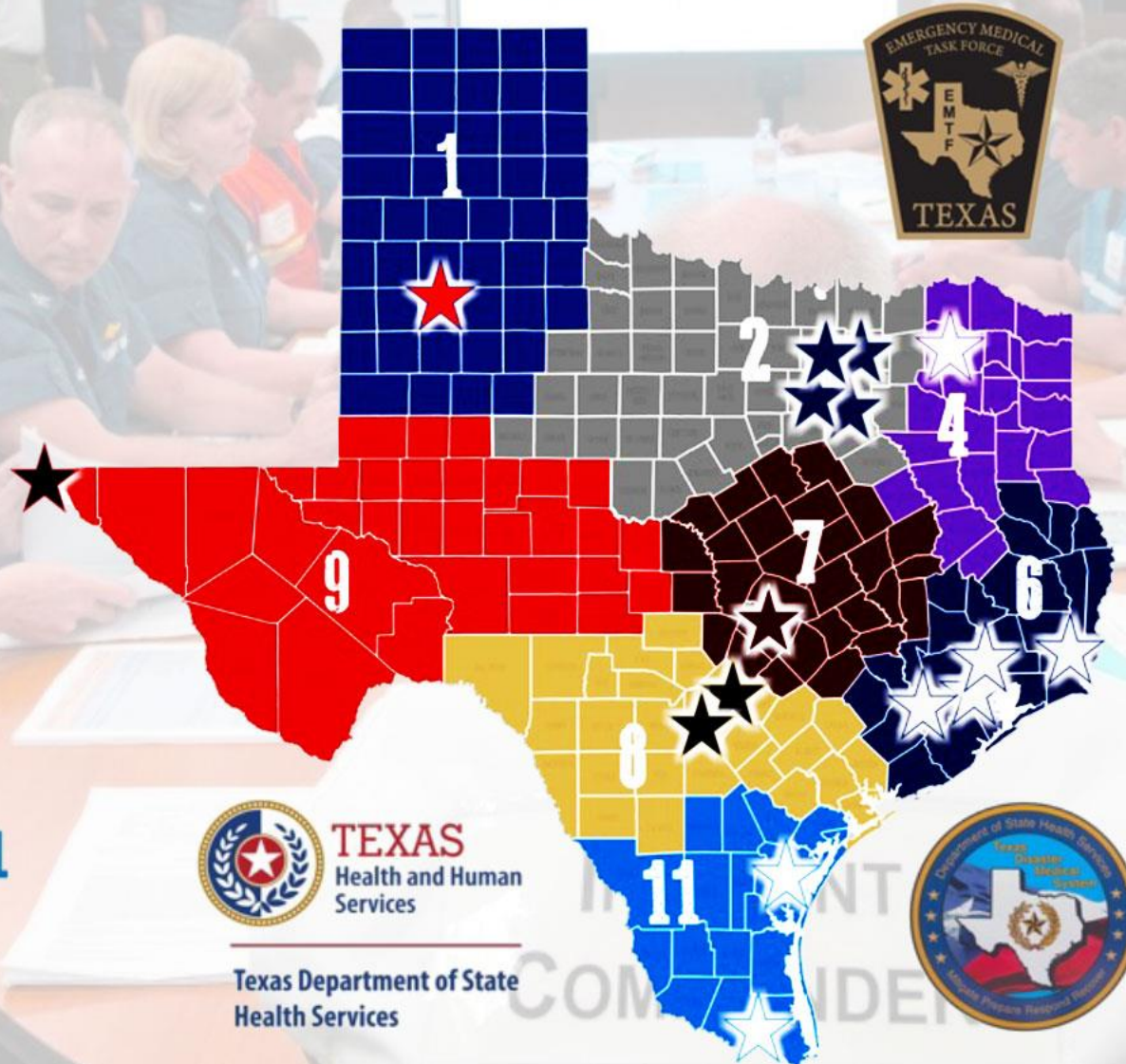
MPV 9-01:
Elite Medical Transport

TX EMTF 8

MPV 8-01:
Schertz EMS
MPV 8-02:
San Antonio FD

TX EMTF 11

MPV 11-01:
Weslaco FD
MPV 11-02:
Corpus Christi FD



TX EMTF 2

MPV 2-01: Frisco FD
MPV 2-02: Flower Mound FD
MPV 2-03: Cedar Hill FD
MPV 2-04: Ft. Worth FD/MedStar

TX EMTF 4

MPV 4-01: Hopkins County EMS

TX EMTF 6

MPV 6-01: Atascocita FD
MPV 6-02: Houston FD
MPV 6-03: Fort Bend County EMS
MPV 6-04: Acadian Ambulance

TX EMTF 7

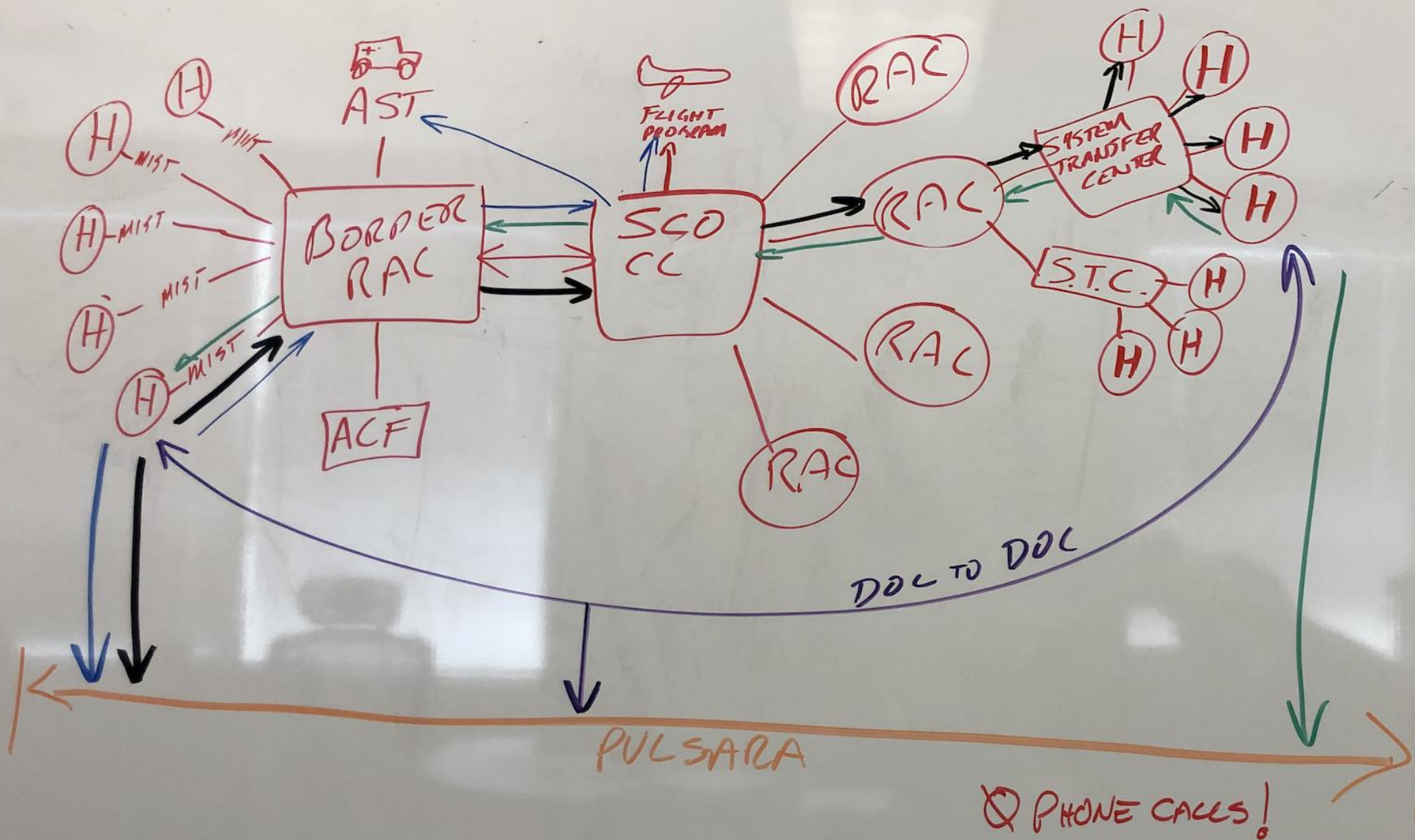
MPV 7-01:
Austin Travis County EMS



TEXAS
Health and Human
Services

Texas Department of State
Health Services





STEPS

1. CALL TO TRANSFER
2. AVAILABILITY
3. DOC TO DOC
4. ACCEPTANCE
5. TRANSPORT ASSET

30⁺ PHONE CALLS

Texas Helping Texans



Referral
Hospital

*Need Additional
Assistance*

Local
RMOC

*Need State
Assistance*

SCC

Receiving
RMOCs



Receiving
Hospital
-or-
Transfer
Center

*Traditional
Referral Pattern*

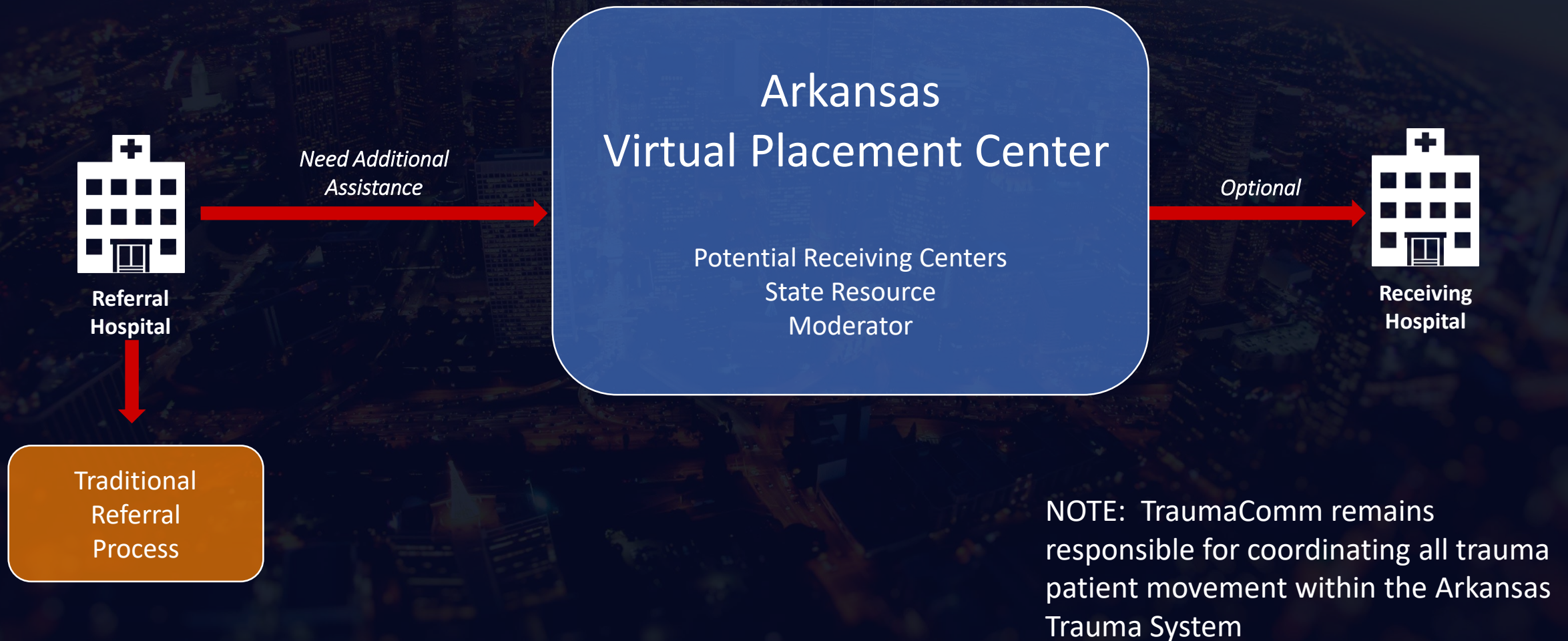


Local
Receiving Hospital
-or-
Transfer Center

Texas Statewide Virtual Placement Center

- | | |
|---------|---------------------------------|
| 1-RMOC | Panhandle Area Transfer Group |
| 2-RMOC | Dallas Area Transfer Group |
| 4-RMOC | Piney Woods Area Transfer Group |
| 6-RMOC | Houston Area Transfer Group |
| 7-RMOC | Austin Area Transfer Group |
| 8-RMOC | San Antonio Area Transfer Group |
| 9-RMOC | Border Area Transfer Group |
| 11-RMOC | Costal Bend Area Transfer Group |

Arkansas Load Balancing with Virtual Placement Center (VPC)

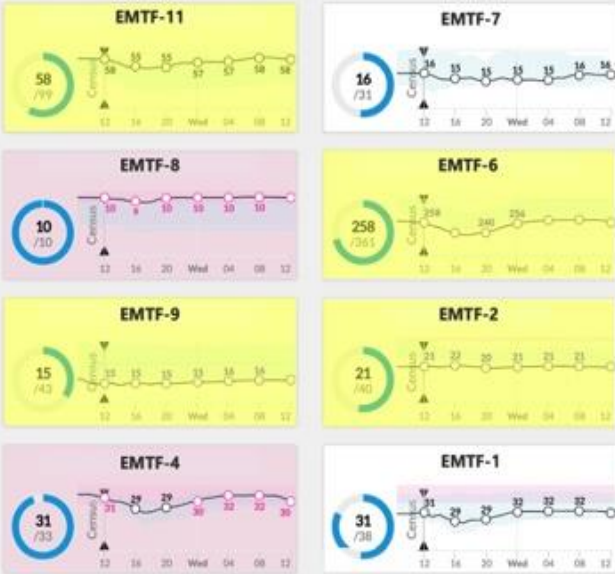
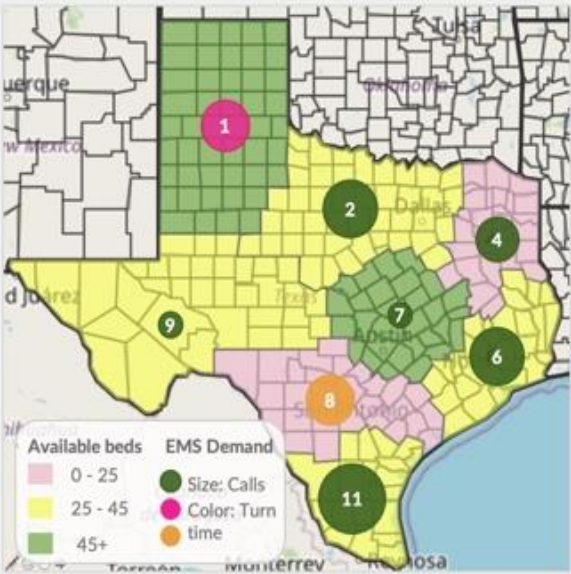


State transfer heartbeat

Last updated 10s ago

Hospital IQ Confidential

Region status

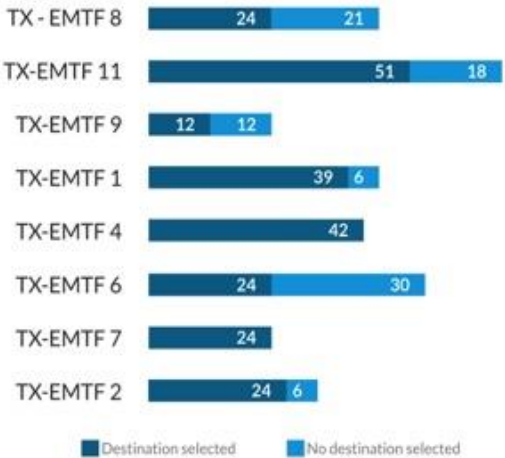


Available beds - Statewide

Region	ICU	Med/Surg	Behavioral Health	Total	Placements today
Overall	84	134	67	285	35
TX - EMTF 8	8	12	2	22	6
TX - EMTF 11	17	20	6	43	5
TX - EMTF 9	8	13	11	32	2
TX - EMTF 1	9	16	22	47	8
TX - EMTF 4	3	18	1	22	1
TX - EMTF 6	8	21	2	31	12
TX - EMTF 7	22	21	11	54	1

Demand

In progress patients



EMS Turnaround Time

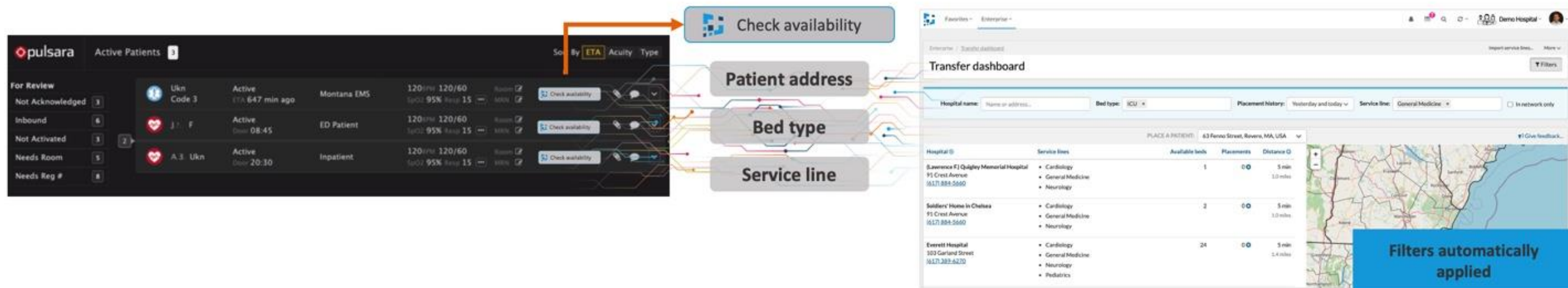


In-progress patients

Region	General	Stroke	STEMI	Sepsis	Trauma	Cardiac arrest
Overall	222	21	14	24	16	36
TX - EMTF 8	30	2	1	5	1	6
TX - EMTF 11	46	4	3	7	4	5
TX - EMTF 9	16	1	1	1	3	2
TX - EMTF 1	30	2	0	0	5	8
TX - EMTF 4	28	8	1	4	0	1
TX - EMTF 6	36	1	3	2	0	12
TX - EMTF 7	16	1	4	1	1	1

Further enhancing the Agent experience

Integration (1)



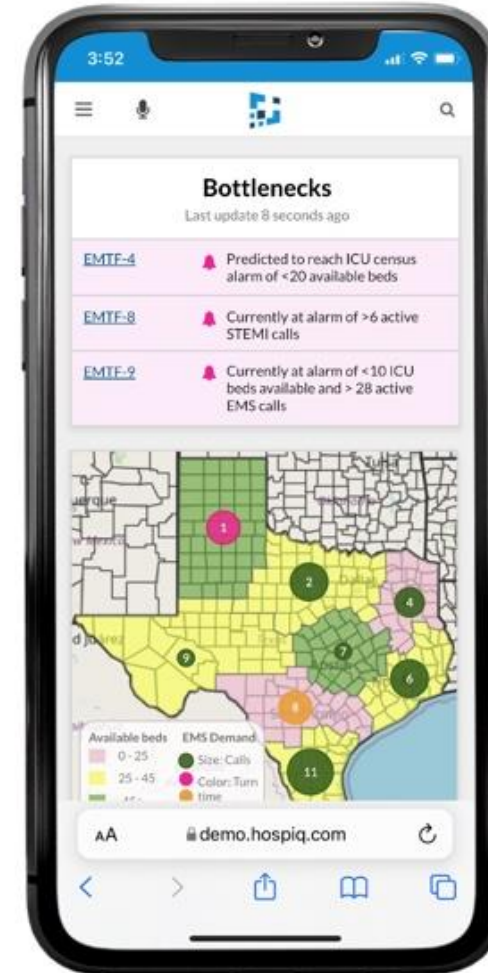
Navigate easily between applications with deep links automatically applying filters to find the best location for the patient even faster

Transforming Regional & State Leadership's Visibility

Automate alerts
based on
actionable
thresholds



View the most
important
information from
anywhere



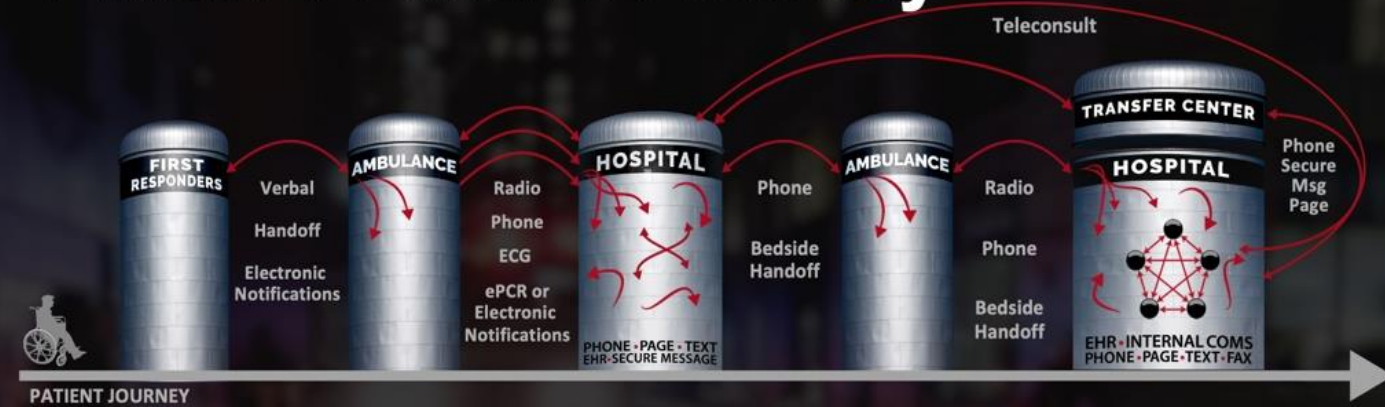
Transforming Regional & State Leadership's Visibility

Alerts for Pulsara
created incidents
directly to your
phone



Mobile
awareness of
capacity local to
incident location



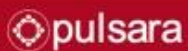


What is the role of the STATE?

This....

3 STEPS

- 1) Create Channel
- 2) Build Team
- 3) Communicate & Track



ONE UNITED CARE TEAM

PATIENT JOURNEY



Role of STATE?



EMS/AMBULANCE



Pulsara **ONE**

Free

- Replace Traditional Radio Report
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Pulsara **UNITED**

Annual Subscription

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STATE / REGIONAL BUNDLES AVAILABLE

Patients — Pulsara Admin Dash

localhost:9000/web/#/cases/patient-list

pulsara

Patients

★

SORT BY

ETA

Type

CASE TYPE

CLEAR

STEMI

4

Cardiac

0

Stroke

0

Trauma

0

Sepsis

0

General

1

STATUS

CLEAR

Active

2

Stopped

0

Inbound

3

MOA

CLEAR

EMS

3

Inpatient

1

ED Patient

0

Transfers

1

OUTBOUND

CLEAR

Consults

0

▼ Montana Memorial

STEMI

FD 67y F

Transport FROM Montana EMS

ETA 1 day ago

Inbound

Room --

MRN --

STEMI

A3 --- -

Inpatient

Start 6 days ago

Active

Room --

MRN --

▼ Montana Rural

GENERAL

DC 32y M

Transfer FROM Montana Me...

Requested 6 days ago

Inbound Request

Room 123

Reg # --

CALL STATUS 1 2

▼ Mercy Memorial

STEMI

AB 36y Ukn.

Transport FROM Montana EMS

ETA 4 hrs ago

Inbound

Room --

STEMI

JP 57y M

Transport FROM Montana EMS

ETA 4 hrs ago

Inbound

Room --

5:12

New Patient

STEMI

Cardiac Arrest

Stroke

Trauma

Sepsis

General



CASE TYPE CLEAR

STEMI 1

Cardiac A... 0

Stroke 0

Trauma 0

Sepsis 0

General 1

STATUS CLEAR

My Call Status 1 1

Availability Last set X minutes ago

Sort By ETA Type



GENERAL

-- -- --

Fully operational.

MM Nurse 1 - 2021-10-11 14:00



STEMI

A3 -- --

Inpatient

Start 10 days ...



On Site

Ro...

--

MRN

--

Ro...

--

MRN

--



Availability

Current Status

Status



Comment

Fully operational.

Save

Last set X minutes ago

Recent Status History



Fully operational.

MM Nurse 1 - 2021-10-11 14:00



No ventilators available.

MM Nurse 2 - 2021-10-11 09:00



One ventilator available.

MM Nurse 2 - 2021-10-11 08:15



No comment

MM Nurse 1 - 2021-10-10 22:00



No beds available.

MM Nurse 2 - 2021-10-10 16:00



Patients



My Patients

All

Active

In

Montana Memorial

Stopped



John Huntsmen



George Lambert

CAD #: CAD 100



(Unknown Name)

64 Years - Male

CAD #: C123



Montana EMS

Inbound EMS



Jessica White

CAD #: CAD 100



Fred Dibbs

Male

CAD #: CAD 100



Richard Ivy

44 Years - Male

CAD #: CAD 111

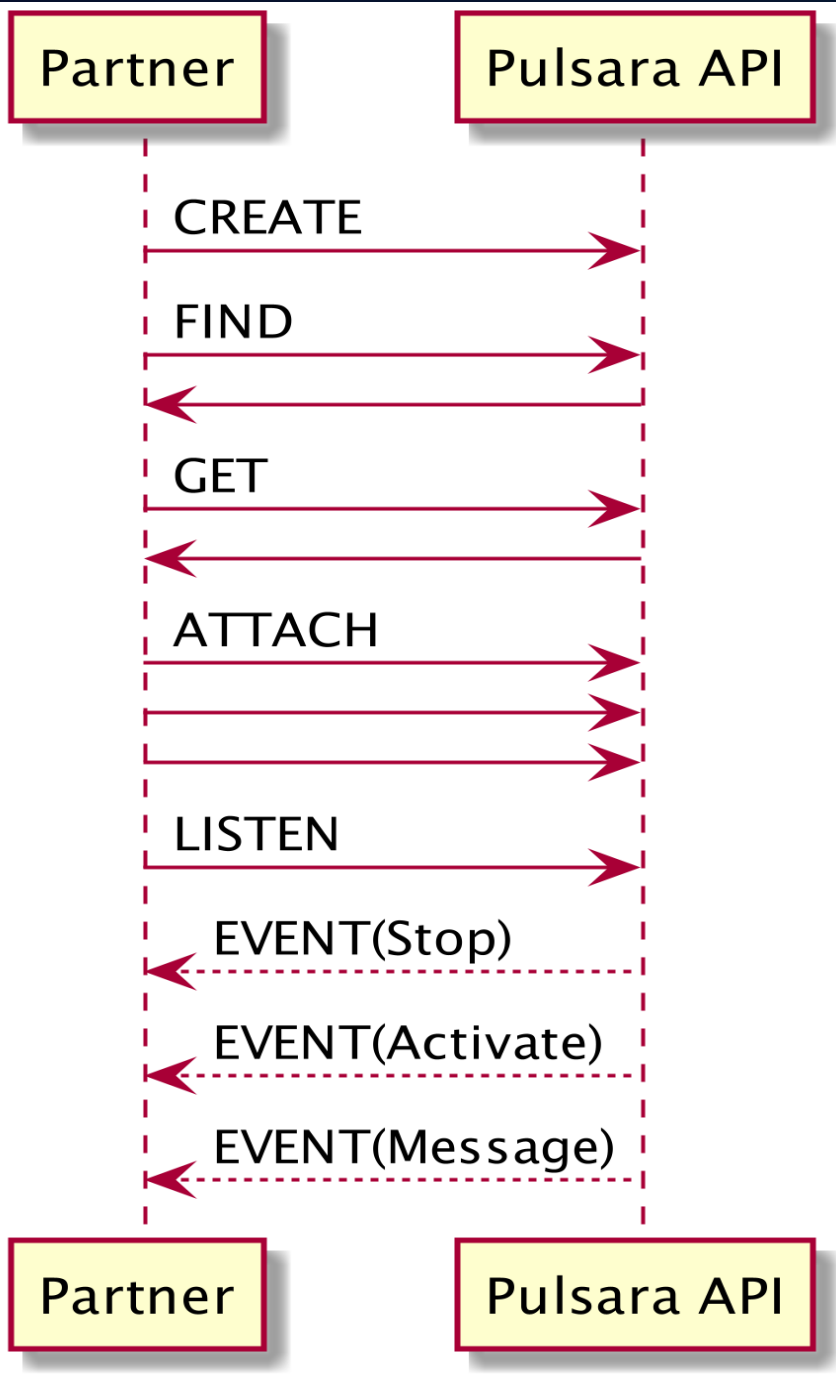


(Unknown Name)



(Unknown Name)



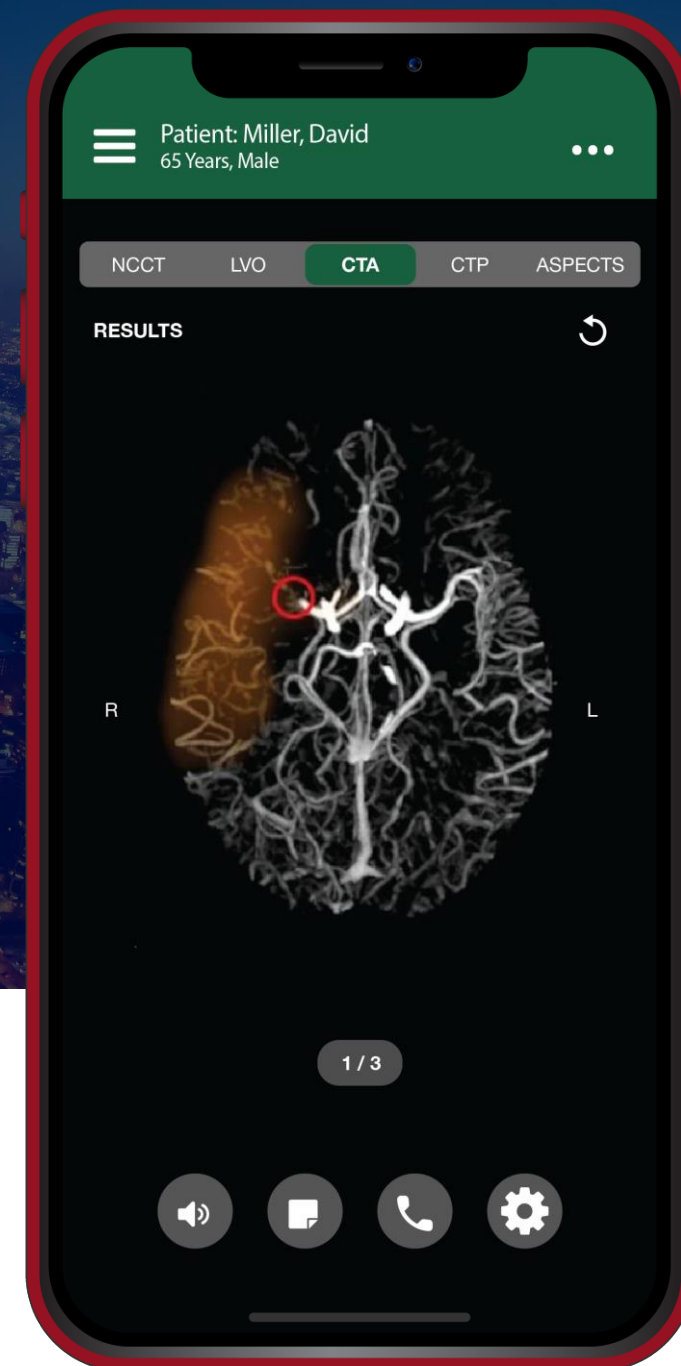
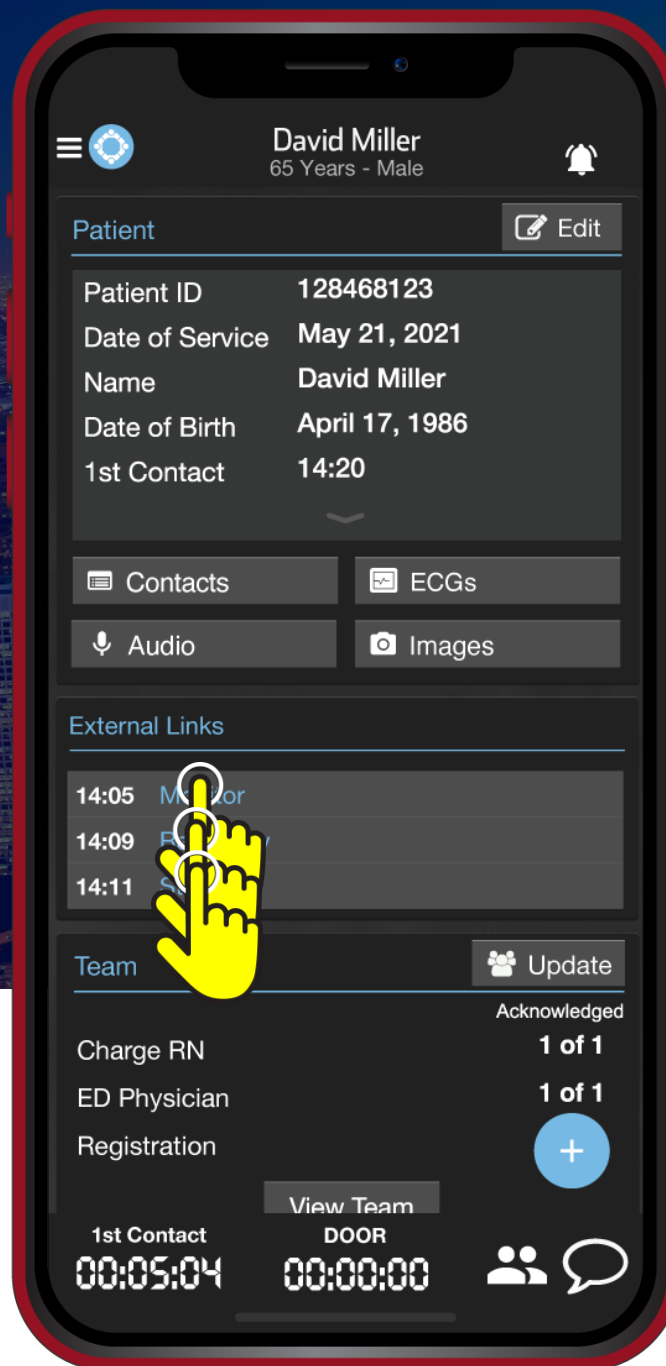


Deep Linking

Pulsara is the common tool that can be used across the entire team.

Our public API can be leveraged for a seamless experience for the patient event.

External Link Examples





State and Local

FISCAL RECOVERY FUNDS

FEMA Standard Equipment List: [04AP-10-EMCS - System, Emergency Medical Communication](#)

“Communication system for use by emergency medical personnel that aids in triage, treatment, and transport of victims by providing a framework for event-based multi-team communication with data capture and exchange.”